

In Confidence: Not to be quoted without reference to the Laboratory

CRUISE REPORT

FRV Mara

5 - 30 May 1975

Personnel:

Dr C C Hemmings	PSO (in charge)
Dr C S Wardle	PSO (pt after 19 May)
Mr J Main	HSO
Mr R Priestley	HSO (pt after 19 May)
Mr G I Sangster	SO
Mr C W Shand	SO (after 19 May)
Mr M Marsh	SO

Objectives

1. To obtain surface and underwater film of the techniques of operating the seine net.
2. To obtain still photographs (35 mm and 6 x 6 cm) of the techniques of operating the seine net.
3. To investigate the possibilities of using CCTV to record the information on fish capture during the operation of the seine net.

Results

On ten of the working days weather conditions were unsuitable for diving operations.

Two days were spent making diver observations and measurements of the North Sea Trawl fished by 'Clupea' to check and adjust the gear before 'Clupea' commenced comparative fishing.

During the time allotted for filming seine net operations underwater visibility was very poor and cine film of surface activities only was obtained.

Techniques for operating the new hydroproducts' TV camera fitted with a RCA Sitcon tube were developed during six hauls with the seine net in the last week and for the first time TV pictures of gear and related fish activity were successfully recorded.

The equipment consisted of a TV monitor and video recorder, located on the 'Maid' which chaperoned the underwater personnel during diving operations in company with the divers' rubber dinghy and a TV camera connected to the surface equipment by 80 metres of cored cable. A hard eye made in the cable 10 metres from the TV camera provided a connection to a quick release clip on the headline of the seine net.

Two divers descended the guide rope previously attached to the headline. One diver carried the TV camera and the other managed the cable and fastened the hard eye to the quick release clip. Direct two way voice communication between the crew of the "Maid" and TV camera man was maintained using 2 cores of the TV cable.

Throughout the six hauls and in poor underwater visibility conditions with contrast and light levels too low for cine filming, TV observations were successfully recorded using entirely the natural lighting available. Replay of the video tapes showed that the pictures recorded are clearer than the divers had seen whilst operating the TV camera. Furthermore the contrast range of the pictures was much enhanced giving a sunlight effect even though they were recorded under exceedingly dull water conditions.

C S Wardle  
24 May 1976

Seen in draft - W T Mair